DOCUMENT RESUME

ED 095 916 IR 001 100

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TITLE	Planning and Evaluating Library System Services in Illinois.
INSTITUTION	Illinois Univ., Urbana. Library Research Center.
PUB DATE	Aug 74
NOTE	81p.
EDRS PRICE	MF-$0.75 HC-$4.20 PLUS POSTAGE
DESCRIPTORS	Accountability; *Decision Making; *Evaluation Methods; Interlibrary Loans; *Library Planning; Library Services; *Manuals; *Objectives; Regional Libraries; Regional Planning; Statewide Planning; Systems Analysis
IDENTIFIERS	CIPP; *Context Input Process Product; Illinois

ABSTRACT

This manual was conceived as a reference guide for Illinois' 18 library systems to use in their long-range planning and evaluation program. Section 1 of the manual explains the planning model: Context Input Process Product (CIPP). CIPP was selected as a coherent adaptation and modification of many previous planning and design methods: systems analysis, programed instruction, and Planning Programing Budgeting System (PPBS). It consists of four major steps: context evaluation (identifying the environment/setting goals and objectives); input evaluation (selecting alternatives); process evaluation (implementation); and product evaluation (assessing final results). Further explanation is provided on the process of generating library goals and objectives. Finally the CIPP model is applied to the central interlibrary loan operation of a hypothetical public library; question formulation, goal setting, and implementation activities. A flowchart of the CIPP model, a glossary of terms, report writing forms and procedures, and a bibliography are appended. (Author/SL)

ED 095916

PLANNING AND EVALUATING LIBRARY SYSTEM SERVICES IN ILLINOIS

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August, 1974

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FOREWORD

Sections II, III and V are suggested for readers desiring an abbreviated introduction to the fundamentals of the CIPP model. The entire manual should be read by those embarking on a comprehensive planning effort.

I. PREFACE

This manual was prepared by the Library Research Center, University of Illinois at Urbana-Champaign, under a grant from the Illinois State Library, Springfield, Illinois. The manual was conceived as a reference guide for Illinois' eighteen library systems to use in their long-range planning and evaluation programs. Starting in the summer of 1973, visits were made to each system to discuss the manual and to furnish additional data about the planning project. Many supplemental visits and consultations between the Library Research Center and system personnel were also undertaken. Each library system was permitted maximum autonomy in the development of their plans. Because planning/evaluation and the model (Context, Input, Process, Product) explicated in this manual have not been applied to an entire state before this time, some repetition of concepts and examples was considered essential. Both the manual and the five-year plans being developed by the systems have emphasized library services in contrast to purely internal operations. Finally, this manual is designed to provide general guidance for assessing library services and for formulating goals, objectives, and criteria to measure program

attainment. No attempt has been made to delineate or resolve the complex issues involved in the derivation and standardization of library measures.

II. PLANNING AND EVALUATION: DEFINITION AND RATIONALE*

Planning is a process of preparing a set of decisions for future action and is directed toward achieving objectives by optimal means. This requires decision making, which in turn requires reliable data. Evaluation is the process of delineating, obtaining, and providing information for managers and staff. It is a system of informational feedback. Evaluation provides the decision maker with information with which to make judgments about current progress and future needs. It is important to distinguish between the roles of evaluator and decision maker. The evaluator assists in designing a viable information system and the decision maker is responsible for evaluating the information and making policy judgments.

There are two interrelated rationales for the introduction of formal planning and evaluation procedures. The first benefit relates to operational efficiency and effectiveness. Application of planning techniques requires a rigorous analysis of available resources, user needs, and alternative strategies.

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*Adapted from Daniel L. Stufflebeam, "The Relevance of the CIPP Evaluation Model for Educational Accountability." In David D. Thomson, ed., Planning and Evaluation for Statewide Library Development: New Directions, pp. 24-33.

Evaluation, generally the weakest link in planning activities, focuses on the means of measuring progress from stated goals and objectives to final results. A comprehensive approach to evaluation should provide for the monitoring of organizational activities during the preliminary, intermediate, and final stages. A second value of planning and evaluation relates to the concept of accountability. Accountability involves both the reciprocal responsibilities of manager and professional within an organization, and the relationship between an organization and its external constituencies. Internally, an organization should have clearly articulated tasks and expectations for each professional and an equally precise statement of management responsibilities. Externally, an organization should be obligated to justify or account for the effectiveness or impact of its essential mission.

Both aspects of accountability require that organizational goals be specified and measurable whenever possible. And the specification of goals and objectives is dependent upon the establishment of a systematic approach to the procurement and evaluation of information for decision making and evaluation. Finally, accountability and planning achieve optimum results when accompanied by a broad involvement of management, staff, and client in the planning/evaluation process.

III. CONTEXT INPUT PROCESS PRODUCT (CIPP) MODEL

There are many planning models. We shall work with a model known as Context Input Process Product (CIPP). This model was adopted because of its relative simplicity and the existence of a sizable body of explanatory literature. It was developed and refined by the Evaluation Center of Ohio State University. The Ohio State University Evaluation Center conducted several seminars during 1971-72 on the applications of the CIPP model to state-wide library planning.

The CIPP model is neither a radical planning innovation nor a how-to-do-it kit. It is a coherent adaptation and modification of many previous planning and design methods: systems analysis, programmed instruction, and Programming Planning Budgeting System (PPBS). As with all theoretical presentations, the CIPP model should be considered as a framework to guide thinking. It ensures an analytical approach by requiring planners to answer essential questions and to make specific judgments at key points in the planning process. CIPP does not prescribe the specific research techniques (e.g., survey questionnaires, time and motion studies) that should be employed.

FOUR MAJOR CIPP STAGES

1. Context evaluation provides information about needs, problems, and opportunities in order to identify goals, objectives, and their associated criteria.

2. Input evaluation provides information about the strengths and weaknesses of alternative strategies for achieving objectives.

3. Process evaluation provides information about the strengths and weaknesses of a strategy during implementation so that it may be strengthened or eliminated.

4. Product evaluation provides information for determining whether objectives are being achieved and whether the procedure employed should be continued, modified, or terminated.

Context (Planning) ——————→ What's Out There?

Input (Structuring) ——————→ How to Do It?

Process (Implementing) ——————→ Are We Doing It?

Product (Recycling) ——————→ Did We Do It?

For a graphic representation of the CIPP model, see diagram (Figure 1) on the next page. A more detailed flowchart of CIPP can be found in the Appendix.

Each of the four CIPP stages is related to the processes of delineating, obtaining, and providing pertinent information for decision making. The relationships between the CIPP stages and the three informational gathering/disseminating activities are elaborated in Figure 2.

Figure 1: BLOCK DIAGRAM OF THE CIPP MODEL

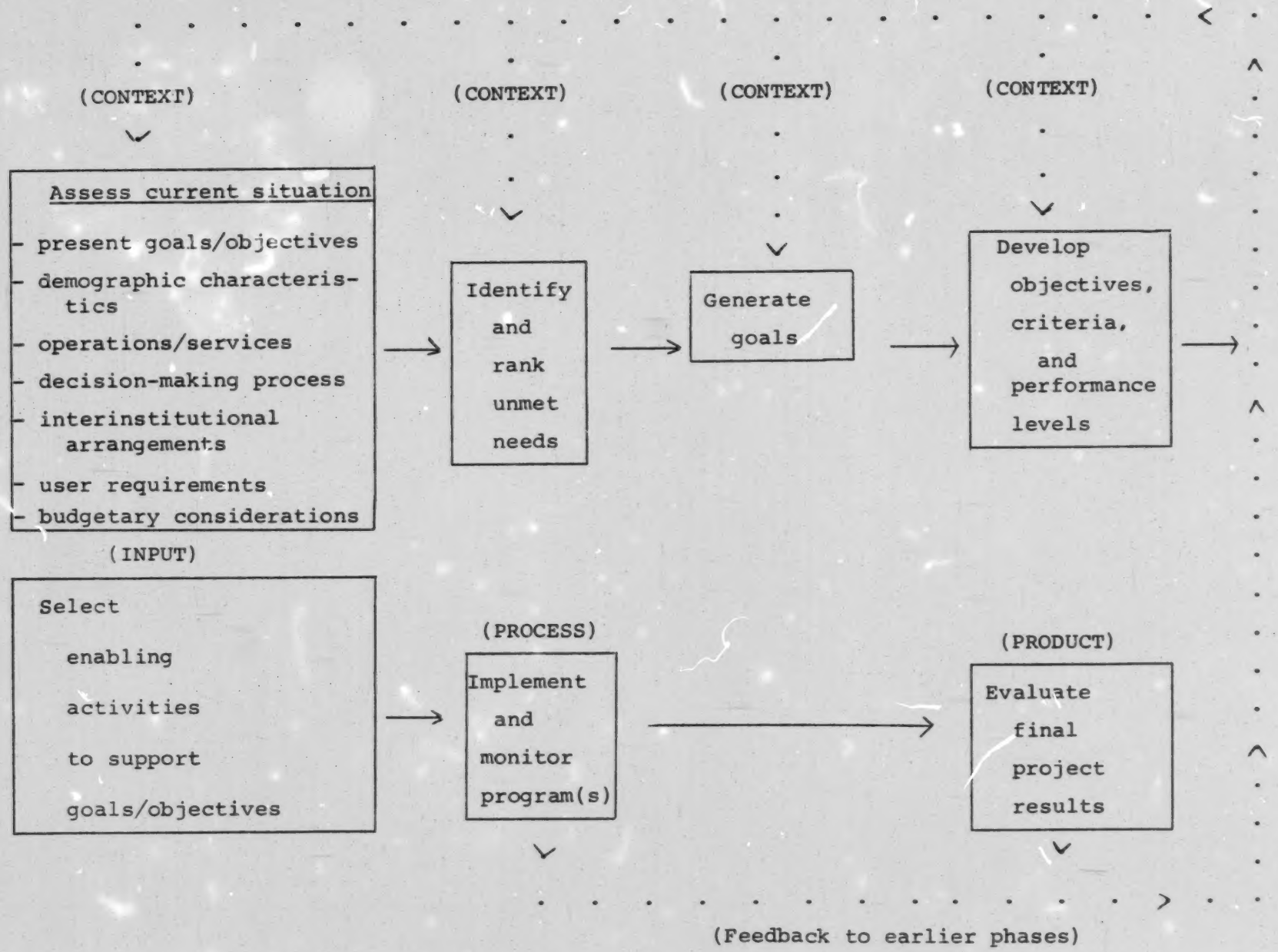

Figure 2: RELATIONSHIPS BETWEEN THE FOUR EVALUATION PHASES AND CORRESPONDING INFORMATIONAL ACTIVITIES*

INFORMATIONAL ACTIVITIES	EVALUATION PHASES			
	CONTEXT (Describe Environment)	INPUT (Select Alternatives)	PROCESS (Monitor Progress)	PRODUCT (Final Assessment)
DELINEATE (What information is needed?)	Determine what data are needed to provide complete background for plan.	Enumerate all possible ways to meet goals and objectives by group brainstorming sessions.	Establish data collection procedures to monitor all programs.	Establish procedures to collect data for final program assessment.
OBTAIN (How to get the information)	Review and collation of data by director, system staff, advisory group, librarians, trustees. Isolate needs, problems, opportunities; formulate criteria for decision making.	Gather facts about each alternative (cost, feasibility). Apply criteria formulated in context phase to the selection process.	Collect data during program operation to evaluate its effectiveness/efficiency.	Secure data concerning overall program effectiveness and efficiency. Objective and subjective information is relevant.
PROVIDE (Reporting information)	Generate overall planning goals and specific, measurable objectives. Rank in order of importance.	Select best alternative(s). Formulate written, detailed plan of action, to include designation of project personnel and schedule of program completion dates.	Relate performance data to stated goals and objectives. Modify or delete goals/objectives as applicable.	Prepare final evaluative report. Decision on continuation, modification, or abandonment of program. Stress generalization of findings to other programs.

*Adapted from Brooke E. Sheldon, ed. Planning and Evaluating Library Training Programs. (Tallahassee, Florida: School of Library Science, Florida State University, 1973), p.6.

CONTEXT (Identifying the Environment/Setting Goals and Objectives)

Context evaluation involves a detailed description and assessment of the library system's environment. Major aspects of the environment that are analyzed in this phase are user needs, unused opportunities, competing sources of information, inter-institutional arrangements, demographic characteristics of the user (and non-user) community, personnel/financial strengths and weaknesses, and the system's decision making structure. From this evaluation, tentative goals and objectives to meet future needs are formulated. Constructing measurable objectives is the most critical step in the Context stage. Briefly, a measurable objective should incorporate one or more directly measurable criteria or standards against which progress toward the objective's stated purpose can be assessed. These criteria constitute the operational measures which are applied and analyzed during the Process and Product phases of the CIPP model. Alternative actions and activities to implement the goals and objectives are the subject of the Input phase, discussed in the next paragraph.

INPUT (Selecting Alternatives)

One of the most neglected areas in program planning is consideration of alternative approaches or strategies to achieve

previously identified goals and objectives. The temptation to select a familiar or convenient strategy is compelling. But the obvious strategy will not always satisfy the needs and opportunities of the situation. Creative exploration of alternative routes will pay dividends during the implementation and final assessment stages.

Input decisions are based on a host of factors, including staff resources, availability of funds, and time constraints. Cost implications and projected completion times are especially important variables in the process of selecting alternatives. Planning techniques such as the Program Evaluation Review Techniques (PERT) are helpful in ascertaining optimal project completion dates. Once a strategy has been chosen, specific staff responsibilities for each part of the project should be assigned.

PROCESS (Implementation)

Process evaluation involves monitoring a program during the implementation and tryout stages so that modifications, as appropriate, can be considered. A planning document should stipulate reasonable intervals at which a project will be assessed. Formal, continuous evaluation is an often overlooked aspect of the planning process, but a vitally important

operation. For it is only through periodic evaluation that the viability and effectiveness of programs can be ascertained before project completion and the expenditure of sometimes large amounts of money. It is preferable to eliminate or modify a project in the early operational stage than to find out about deficiencies when it is impractical to modify or reverse direction. Several key questions to be answered during the Process phase are: Will this approach enable us to reach our objectives? Are we using the tactics we planned? What effect do extraneous variables have on the strategy? What factors other than criteria identified in the objectives should be evaluated to determine the strategy's success or failure?

PRODUCT (Assessing Final Results)

The final CIPP phase, Product evaluation, provides information concerning the degree to which overall goals and objectives have been achieved. Performance measures stipulated in objectives prepared during the Context phase are the major criteria against which a project's effectiveness should be assessed. For projects with a specified duration, the Product stage will coincide with the completion of an activity. For indefinite projects, Product evaluation serves as the major, formal analysis of a program's value and impact. Since the

Product phase emphasizes the impact of a service, the final evaluation should include reactions from both library staff and service users (and nonusers as appropriate). Findings derived from the Product examination should be reduced to a written report. Such a report will allow all interested parties to review the evaluation and a permanent record will be available for future reference.

DECISION MAKING AND THE PLANNING PROCESS

As expressed earlier, a major planning/evaluation effort should draw upon a representative group of persons to participate. It is unlikely that a long-range plan developed solely by a library manager would satisfy users and command allegiance of the library staff.

How should decisions be made? While there are many valid approaches to organizing for planning, some suggestions may be helpful. Carefully prepared, written agendas distributed in advance of planning sessions should accelerate discussion and decision making. Setting dates for the resolution of issues is often beneficial. The tendency to haggle and postpone decisions to the next meeting is a universal organizational problem. Productive meetings require that sufficient

information be available and so arranged that issues can be sorted out and acted upon with intelligent dispatch.

None of the foregoing observations should be interpreted as a call for unanimity. Conflict and criticism is inevitable and healthy. The pros and cons of goals, objectives, strategies, performance criteria, and measurement techniques should be elicited throughout the planning sequence.

SUMMARY

Each phase of CIPP asks several key questions:

CONTEXT--What's out there? Who are the users? What do they need? What are our objectives? How will we measure results?

INPUT--How will we implement the objectives? What are the alternative strategies? Why selected?

PROCESS--Are we meeting the specified objectives during the implementation stage? Are there any unintended outcomes?

PRODUCT--Have the terminal objectives and performance expectations been reached? Should we continue, modify, or terminate the project?

IV. MAJOR STEPS IN LIBRARY SYSTEM PLANNING*

The outline which follows lists the essential elements of the four stages of CIPP in a question format. To answer some of these questions, the system's ongoing data collection procedures may prove sufficient, while other questions will require some original investigation. This list is not intended to be exhaustive and should be adapted to local circumstances. Appendix C contains a brief checklist of questions (a reporting form) that can be used to record key information concerning each goal/objective.

CONTEXT EVALUATION

Decision Structures

Decision structure is defined as the internal and external communication patterns, existing and desired, that enable decisions to be made. Pinpointing the authority and responsibility of persons involved in each major step of the planning and evaluation process should receive priority attention. The decision structure should be sufficiently described in the planning document to indicate the composition of the planning group, chain of authority, focus of responsibility, decision schedules, and the criteria for making decisions.

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*From "Suggested Guidelines for Statewide Library Planning and Evaluation," In David D. Thomson, ed., Planning and Evaluation for Statewide Library Development: New Directions, pp. 297-305.

There are decision structures in all four phases of CIPP (see CIPP flowchart in the Appendix), but the function of the decision structure is most prominent in the Context phase. The input into the decision structure is a body of information and problems. The output from the decision structure is a judgment based upon that information. Judgments made at one decision structure flow into the next stage of CIPP and become the raw material for the next decision point. In this respect the CIPP model is linear. For example, the experience of monitoring a project in the Process phase might reveal some additional variables that should be assessed during the subsequent product stage. CIPP is also cyclical in that decisions cycle back into previous decision structures. Cycling, or feedback, can be illustrated by the decision to abandon an objective developed in the Context stage after an analysis in the Input phase demonstrated the objective's impracticality.

Define the decision structure.

1. What are the bases for decision making in the system? e.g., Democratic? Centralized?
2. Who has the legal authority to make decisions? Who has the delegated authority to do so?
3. For each critical decision, who has the veto power?
4. What non-system agencies will be affected by system decisions? How flexible are these external groups to change?

5. What agencies or groups should share in the decision process?
6. Can problems be dealt with through the existing institutional framework, and, if not, what changes in the organizational structure(s) must be made to resolve them?
7. Which staff members are involved in the delivery of library services?
   a. What user groups do they serve?
   b. What particular services do they provide?
8. What person or persons will direct the planning process and be responsible for making planning decisions?

Identifying General Parameters

A. What is the nature of the system, its general purposes and present institutionalized goals?
B. What are the boundaries and major physical features of the geographical area (e.g., political and civil subdivisions, important geographic features, etc.)?
C. What is the size and composition of the population of the system area (e.g., distribution, special characteristics, etc.)?
D. What institutions, other than libraries might affect the use of libraries (e.g., industries, higher education institutions, prisons, etc.)?

E. What institutions or services, other than libraries, are meeting, formally or informally, the needs for recorded information (e.g., bookstores, newsstands, rural extension services, etc.)?

F. What is the library situation in the area?

1. Who are the "served," who are the "unserved"?
2. Who are the library users and who are the non-users?
3. For what purposes are they using libraries?
4. What are the strengths and weaknesses of system resources (e.g., financial support, buildings, collection, staff, etc.)?
5. What are the relationships, formal and informal (e.g., interlibrary loan patterns, networks and systems, reference, etc.) between the system and member libraries, and between the system and other systems, the four Research and Reference Centers, and the State Library?
6. What are the economic, legal, political and other constraints which affect library service?

G. What factors not covered in A - F above might bear on library service and use?

Formal Assessment Activities

While survey questionnaires and interviews are helpful, they can be over-used and system planning can become bogged down waiting months or even a year for results. The amount of

original data to gather depends upon how much information is already available and the extent to which useful insights can be culled from the data. Information collection should have a utilitarian orientation, serving as the basis for ascertaining unmet needs and constructing goals and objectives to serve those needs. For example, a detailed analysis of library use patterns of an ethnic group known to comprise less than 1 percent of the population would probably deserve a lower priority than a determination of the yet unknown percentage, dispersion, and library use habits of all citizens over the age of sixty-five.

Current sources of data for a system are minutes of board meetings, its Plan of Service, statistics gathered by the system itself and those supplied by the State Library, consultants' reports of work with member libraries, library literature, input from the community, input from other systems and the procedures they use, other professionals both in the system and out of the state. Appendix B contains a rather extensive list of data categories which might profitably be explored.

Figure 3 points out that needs assessment is performed in all four steps of CIPP. Some questions to consider in assessment activities are:

Figure 3: THE PLANNING AND EVALUATION PROCESS AS RELATED TO NEEDS ASSESSMENT*

	CONTEXT EVALUATION	INPUT EVALUATION	PROCESS EVALUATION	PRODUCT EVALUATION
DEFINE	Provides baseline data. Services planning decisions. Provides the basis for determining objectives.	Supports structuring decisions. Identifies and assesses alternative procedural designs and strategies.	Supports implementing decisions. Provides data and feedback to monitor programs. Provides data on a continuous basis which can be used to interpret the outcomes.	Supports re-cycling decisions. Provides information for deciding whether to continue, terminate, modify, or refocus the project or activity.
OBJECTIVE	To define the operating context, to identify and assess needs and opportunities, and to construct goals and measurable objectives.	To identify and assess system capabilities, available input strategies, and designs for implementing the strategies.	To identify or predict, in process, defects in the procedural design or its implementation;to provide information for the preprogrammed decisions, and to maintain a record of events and activities.	To relate outcome information to objectives and to context, input, and process information.
METHOD	By describing the context; by comparing actual and intended inputs and outputs; by comparing probable and possible system performance; and by analyzing possible causes of discrepancies between actualities and intentions.	By describing and analyzing available human and material resources, solution strategies, and procedural designs for relevance, feasibility and economy in the course of action to be taken.	By monitoring the activity's potential procedural barriers and remaining alert to unanticipated ones, by obtaining specified information for programmed decisions, and by describing the actual process.	By defining operationally and measuring criteria associated with the objectives, by comparing these measurements with predetermined standards or comparative bases, and by interpreting the outcomes in terms of recorded context, input and process information.

Figure 3 (contd.)

	CONTEXT EVALUATION	INPUT EVALUATION	PROCESS EVALUATION	PRODUCT EVALUATION
RELATION TO DECISION MAKING	For deciding upon the setting to be served, the goals associated with meeting needs or using opportunities, and the objectives associated with solving problems.	For selecting sources of support, solution strategies, and procedural designs.	For implementing and refining the program design and procedure.	For deciding to continue, terminate, modify, or refocus a change activity, and for linking the activity to other major phases of the change process.
ACTIVITIES OR TASKS	Determine what community values exist with regard to the possible objectives that will be established in the long-range plan. Diagnose those problems which prevent the needs from being met Diagnose problems which account for any discrepancies that may exist between the goals of the state library system and the actual performance of that system Determine what improvement-oriented objectives should be pursued in order to meet the needs that have been identified Determine which objectives will receive the endorsement and support of the community.	Assess feasibility of designs. Determine specific procedures and time schedules. Identify and assess the capability of the library system to meet the objectives. Determine potential costs and benefits for each of several competing plans. Determine what plans, programs, or procedures already exist within the library system.	Determine if program or projects are on schedule Determine if the facilities and resources are used in the prescribed manner and amount. Determine whether staff understand their roles and are prepared and equipped to carry them out or whether staff should be retained or reoriented. Maintain a record of program procedures Determine by monitoring the program which major procedural barriers need to be overcome if objectives are to be achieved.	Determine to what extent the needs of user groups were met as a result of the project or program Determine if the objectives of the plan were attained. Compare results of the project or program with pre-determined standards or criteria.

*From the Ohio State University Evaluation Center.

A. What activities have been conducted to assess the current and future needs of the community? Were these activities adequate to fully assess these needs?

B. What are the current needs of library users?
   1. What groups or classes of users are currently served?
   2. How well are these groups served?
   3. What unmet needs of users currently exist?
   4. What unmet needs of users will exist in the future?

C. What future user needs should be translated into goals for library development?

D. Is the number and educational level of system and member library staff sufficient? What forms of continuing education are desirable?

E. What actions will be required to select and to achieve goals for library system development?
   1. What decisions are required to identify priorities for possible goals?
   2. On what criteria will these priorities be based?
   3. What legislative or administrative enabling action will be required?
   4. What will be necessary to modify or adjust the processes of delivery of library services?
   5. What allocational needs with regard to financial and staff resources will be required?

Needs

Needs are derived from assessment activities. Needs are then ranked according to priority based on criteria or standards. Priority is based upon the urgency of clientele needs, the social utility of serving those needs, the linkage of such service to total community effort, the cost of the service, and the resources available. An example of a need derived from an assessment analysis might be a program of service to elderly housebound citizens. This need was ascertained from a finding that the library service area contained an unusually high number of senior citizens.

Goals and Objectives

Goals are abstract and broad. They reflect the ideal towards which the system works. A broad goal would be to improve library service to citizens in System X. The goal is then broken down to subgoals, e.g., to improve the quality of reference service in the system. From subgoals, broad objectives are then outlined. From broad objectives, flow more specific objectives.

Goals--→ subgoals--→ broad objectives--→ specific objectives.

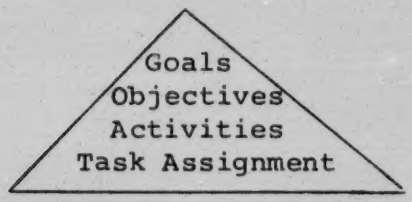
A meaningful goal statement implies movement or progress from the present state of library services toward some specified ideal. In order to do this, certain information about the current status of library service in the system should be presented.

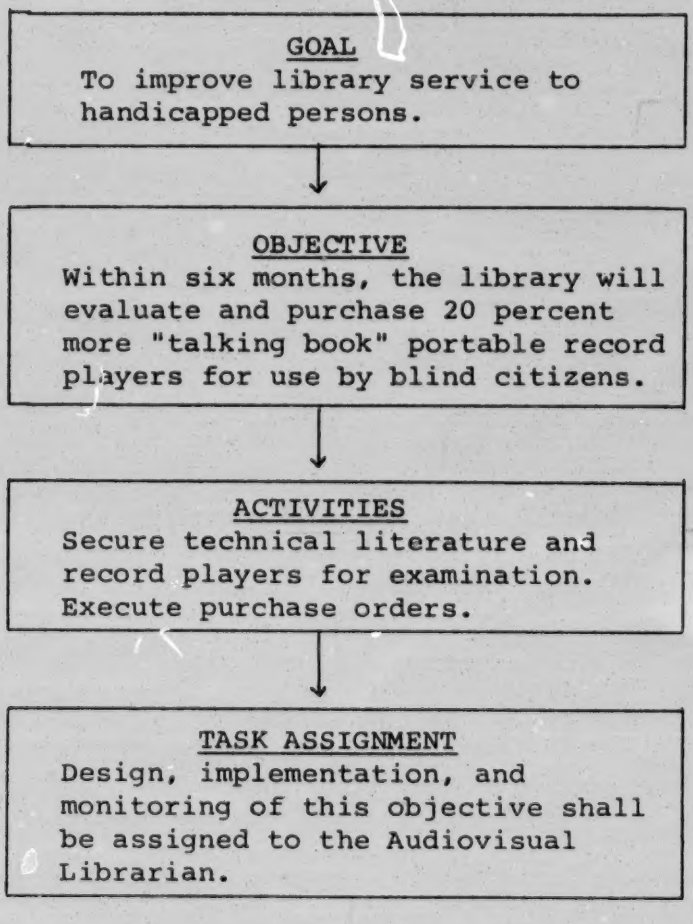
Some points to consider when formulating goals:

1. What goals might feasibly be attained by the end of a five-year planning period?
2. Are the goals consistent with one another?
3. Are the goals consistent with the goals of the State Library? Ideally, goals of the member libraries feed into system goals for planning and system goals feed into the State Library goals as stated in its five-year plan. In turn, the State Library's goals reflect the national picture of cooperative networks.

Objectives specify "what is to be done," "to what degree of success," "for whom," and "by when." If objectives are stated in this way they imply certain specific criteria against which to measure program attainment (see Figure 4). Measurable objectives enable a program to be evaluated in a systematic manner, provide the stimulus for identifying strategies and activities to implement objectives, and constitute the basis for assigning task responsibilities to individual staff members. For a more detailed discussion of generating goals and objectives, consult Section V.

Figure 4: GOAL/OBJECTIVE HIERARCHY




GOAL
To improve library service to handicapped persons.
OBJECTIVE
Within six months, the library will evaluate and purchase 20 percent more "talking book" portable record players for use by blind citizens.
ACTIVITIES
Secure technical literature and record players for examination.
Execute purchase orders.
TASK ASSIGNMENT
Design, implementation, and monitoring of this objective shall be assigned to the Audiovisual Librarian.

Several standards may be used--individual system standards, Minimum Standards for Public Library Systems (1966), Illinois Library Association Standards (Measures of Quality), 1972, and other state and American Library Association standards. The planning group decides which standards of criteria are most appropriate to their situation.

Task assignments should not be made until all of the tasks necessary to accomplish various objectives have been delineated and their priorities have been established. It is then that specific tasks are assigned, eliminating dual responsibilities and allowing organizational changes to be accommodated. In general, breakdowns of responsibility for tasks are done on a short-term rather than a long-term basis.

Two major approaches to evaluating the impact of goals and objectives are described below.* It is vitally important that the basic approach and the specific measures be delineated during the goal/objective setting process.

I. Assessment of program effectiveness by leaders and administrators.

A. Measure the program against standards.

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*Adapted from Wilson B. Thiede, "Measurement and Evaluation in Adult Education." In Herbert Goldhor, ed., Research Methods in Librarianship: Measurement and Evaluation (Urbana, Illinois: University of Illinois, Graduate School of Library Science, 1968), pp. 88-94.

B. Measure the program against a hypothetical idea of what a "good" program should be. (There is no general consensus among librarians in this area because of its subjectivity.)

C. Compare one library program with that of other communities. (This may produce new program ideas but is of no great use to evaluation.)

D. Measure the amount of participation. It is assumed that if people continue to participate, the program must be good.

II. Measurement of attitude change, knowledge acquired, or problems solved based on measurable objectives. (There are few standardized measurement techniques and indicators in the library field.)

Criteria for Evaluating Goals and Objectives

How can objectives be ranked according to their priority and what criteria will be used to achieve this ordering?

In assessing needs, setting objectives, and evaluating results, the decision-making group should select criteria so that judgments will be based upon a generally acceptable standard, rule, or test. This helps prevent subjective decision making. Cost is an obvious criteria for ranking and evaluating

the feasibility of objectives. What is the dollar cost and social benefit of meeting a need compared to the costs of ignoring it? The interrelationships among objectives should be clearly shown in order to avoid conflicts of authority, gaps in service, and duplication of effort.

INPUT EVALUATION

Alternatives

Consideration of alternative strategies to achieve objectives is a significant aspect of planning. The various possible approaches to implement an objective should be identified and analyzed. For example, a library wishing to promote greater circulation of certain materials would have several options available: prime display location for the books, list of books available within the library, and newspaper or broadcasting advertising. Along with budgetary and personnel factors, it is also important to weigh such consequences as political impact and the effect of a particular alternative on future maneuverability.

Analysis of Alternatives

A. General

1. What is the full range of alternative means to achieve targets?
2. What changes in law, rules, regulations and standards might assist the library system to reach various targets?
3. What changes in organizational relationships, programs, and activities might assist the library to reach various targets?

B. Pros and Cons

How feasible is each of the identified alternatives?

1. Is the cost of each alternative reasonable?
2. How feasible are the organizational and/or other changes implied by each alternative?
3. What are the possible unintended consequences of each alternative?

C. What resources are required to implement each alternative?

1. What physical facilities, staff, and other resource requirements are required by each alternative?
2. What time-scheduling options and constraints exist for implementation of possible alternatives?

D. What financial resources are required to implement each alternative?

1. What financial resource expenditure pattern is implied by changes in organization, programs, and activities dictated by various alternatives?

2. Are current prices appropriate for calculating costs?
3. If not, what are the assumptions concerning changes in the prices of printed and A-V materials, etc., on which future expenditures are based.

E. What is the relationship between anticipated consequences and costs for each alternative (i.e., which feasible alternatives are most cost-effective)?

Decision Structure

Who has the authority of deciding among alternative programs? System staff, trustees, member librarians, and non-professional staff can provide input with the director.

PROCESS EVALUATION

In the process stage programs developed in the Context and Input phases become operational. The progress of programs using criteria stipulated in the objectives, is evaluated at periodic intervals. Process evaluation should be viewed as a formal, systematic examination of program status. Results of the evaluation constitute the basis for continuance, modification, or elimination of programs.

Monitoring Criteria

A. Are the criteria specified in the objective(s) being used to evaluate progress?
B. What additional factors relevant to the program should also be analyzed?
C. Is progress checked at regular intervals?
D. Is the evaluation data sufficient to provide a judgment of progress?
E. Are the results of the process evaluation put into written form and reviewed by appropriate personnel?

Decision Structure

A. What is the nature of the decision structure entrusted with the responsibility for implementing and reviewing programs? Are there major differences in the decision making arrangement in the Process phase that were not present in the prior planning stages?
B. Are the lines of authority and responsibility clearly described and known to all concerned?

PRODUCT EVALUATION

Product evaluation, last of the four CIPP stages, involves a final estimate of how well the intentions stipulated in objectives have been attained. As in the Process phase, the criteria incorporated into the statement of objectives

constitute the main benchmarks against which achievement is gauged. Results derived from the Product evaluation form the basis for the terminal decision on program viability.

Measuring Attainment of Objectives

A. Are the measurement devices employed to secure data valid and reliable? Has a random sampling of users been considered?
B. What criteria in addition to those specified in the statement of objectives are relevant to a final assessment?
C. Will all persons connected with a program be asked to contribute their views?
D. Should a consultant be hired to assist in the assessment?

Common Assessment Factors

A. How much does the program cost? Is the cost congruent with initial expectations? What is the projected cost?
B. Did the program meet the overall time schedule?
C. Are there any unintended or unanticipated consequences of implemented programs?

Decision Structure

[The same comments made about the decision-making process in the Process phase apply here.]

V. GENERATING LIBRARY GOALS AND OBJECTIVES

Goals and objectives are essentially statements of some desired future direction. The development of goals and objectives allows an organization to set targets for future action and to assess progress in achieving proposed outcomes. Attempts to manage resources, human and material, without articulating statements of expected results is pragmatic at best and conterproductive at worst. The absence of clearly defined purposes for organizational activities will often adversely affect employee morale, staff productivity, budgetary planning, program effectiveness, and task efficiency. In a nutshell, if you don't know where you're going, how do you know when you get there? And to what degree of success?

Goal determination and planning are viewed by management experts as methods for insuring accountability within an organization, and between an organization and its constituency. Explicitly stated written goals and objectives inform employees of work expectations and provide the institution's constituency (e.g., taxpayer, user of a product or service) with a standard against which to judge organizational intention and progress. A number of potential benefits can result from a concerted effort to delineate organizational goals and objectives:

-- Involves entire organization in seeking solutions to common problems and future needs.

-- Requires management to articulate its purposes, to review them continually, and to relate broad organizational goals to each operational sub-unit.

-- Provides a method for translating goals and objectives into meaningful and specific task activities.

-- Introduces two-way accountability between management and staff for the achievement of organizational commitments.

Differences Between Goals and Objectives

While there is considerable discussion in the scholarly literature over the definition of goals and objectives, it is only important to select the terminology and to use it consistently. We shall define goals as relatively broad statements that imply general movement toward a future point or ideal. Goals are not usually measurable in themselves. When developing goals, the emphasis should be on the substantive value of the proposition or concept being considered and not with the availability of resources for immediate attainment. A goal relating to the maximization of bibliographic access may be perfectly valid, but not be realizable for many years. After

goals have been prepared, it is time to break them down into manageable, measurable statements reflecting specific program directions. These measurable statements are objectives. Briefly, an objective stipulates what is to be done, for whom, in what length of time, and to what standard of performance. In contrast to the ideal orientation of goals, objectives must be attainable and therefore derived from a realistic assessment of organizational resources (staff, finances, materials, etc.). Perhaps an example of an overall goal and a supporting objective will make the distinction more clear:

Goal--to provide library service to the disadvantaged.

Objective--within a two-year period, the library will initiate a summer reading program for disadvantaged children. The program's success will be measured by the average number of circulations per participant. (Note: There are additional criteria against which the success of this program could be evaluated; e.g., extent of browsing in the library, number of books purchased for home use, impact of the reading program on subsequent school performance.)

Properties of Measurable Objectives

An objective shall be defined as a specific, written statement that indicates what we intend to accomplish to serve

the needs we have identified. Objectives have both a present and a future context. The present context requires an analysis and specification of user needs, identification of goals, and a thorough knowledge of available institutional resources to implement proposed programs. It is the future dimension of objectives that makes them especially important in the planning process. To project future actions, a number of features should be incorporated, whenever possible, into each objective. Objectives should contain the following properties or components.

Statement of Purpose.--An objective should convey a precise statement of what is to be done. In the field of education, this part of the objective is usually referred to as the behavior or impact. For example, an objective which states a desire to improve reference service lacks focus and would be more properly labeled a goal. To improve the accuracy of responses to reference inquiries would be a sharper statement of purpose. An objective should also indicate for whom the program or action is intended and the projected length of time to complete the proposed activity. Key terms or concepts should always be defined. In the previous example of an objective relating to disadvantaged children, the term

"disadvantaged" would require a precise breakdown as to age group, economic level, educational attainment, ethnic composition, etc.

Criterion.--Each objective should specify a criterion (also known as indicator, standard, unit of measure) against which progress toward the objective can be evaluated. Multiple criteria may be appropriate for some objectives. The criterion is crucial for it provides the basis on which to judge the success or failure of attaining the purpose identified in each objective. Examples of criteria might be the number of successfully answered reference inquiries, percentage of area industrial corporations utilizing library services, and cost per circulated volume. A criterion should represent a logical, valid measure of the purpose defined in the objective. It is entirely possible to develop a worthwhile objective and then fail to select an appropriate criterion for assessing the proposed impact. For example, a definition of library use (a criterion for many possible objectives) restricted to door counts or circulation transactions would not be a satisfactory criterion to measure the value of most library collections. Other pertinent aspects of library use might be in-house browsing, use of bibliographical tools, number/type of reference inquiries, interlibrary loan, and photocopying.

Performance Level.--Each criterion should be accompanied by a statement of the desired performance level. The expected performance level for each objective then becomes the precise, measurable target against which progress can be evaluated. There is no formula for setting a particular level, but it should meet the tests of being both challenging and attainable. Using the sample criteria from the previous section, performance levels might look like this: 85 percent of all reference inquiries will be correctly answered; 50 percent of area industrial corporations should utilize library resources; and the cost per circulated volume should not exceed 45¢.

Method of Evaluation.--After determining the statement of intended action, the criterion, and the performance level, it is appropriate to define how you plan to measure achievement of the objective. The choice of measurement devices may range from the maintenance of routine records to an elaborate attitude survey. It is important to have some knowledge of the advantages and disadvantages of major research techniques (survey, observation, experimental). Measurement techniques should be employed in a way that will generate reliable conclusions. A telephone survey of user attitudes toward fine policies in a large city that made no provision for contacting persons holding unlisted

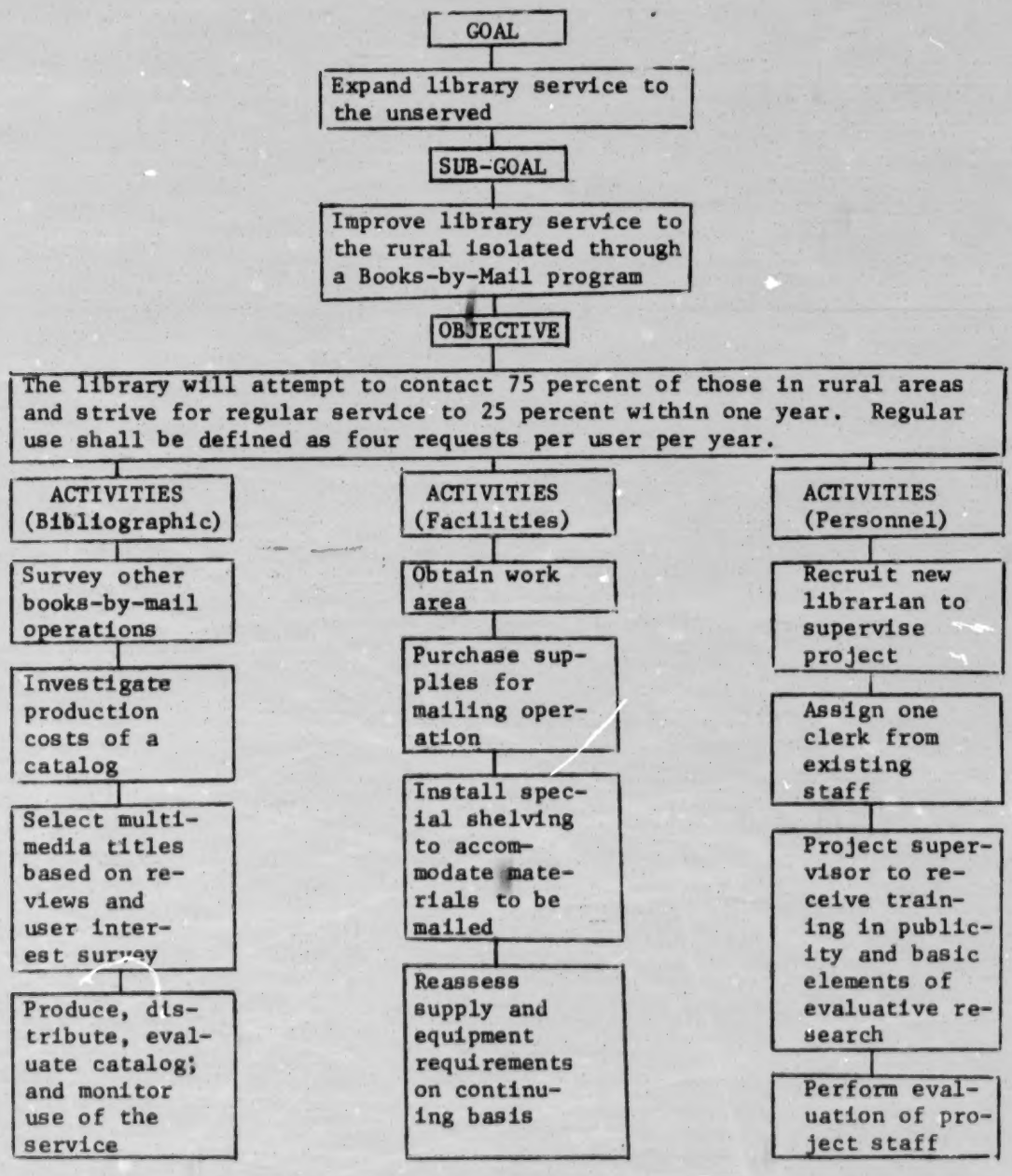
numbers could introduce sampling bias to the results and they may not be generalizable.

Activities/Actions.--The last step is to consider the range of possible activities to implement a given set of goals and objectives. During this phase of the planning process, particular attention should be paid to these factors: direct, logical relationship between objectives and activities, financial considerations, impact on services, manpower resources, and internal constraints. Although elaboration of a set of alternative activities for each objective and justification for selecting the optimum approach is time consuming and tedious, it will produce a set of objectives, measures, and activities which are logically consistent, feasible, and attainable.

Hierarchy of Goals, Objectives, and Activities

Not all goals and objectives are of the same importance or need to be specified in the same degree of detail. It may be helpful to classify goals/objectives in a hierarchical relationship, starting from a general goal (and possible sub-goals) and moving to more refined statements of objectives and their associated activities. The following hypothetical example graphically illustrates the hierarchical relationship of a goal, sub-goal, objectives, and activities/actions (Figure 5).

Figure 5: SAMPLE HIERARCHY


GOAL
Expand library service to the unserved
SUB-GOAL
Improve library service to the rural isolated through a Books-by-Mail program
OBJECTIVE
The library will attempt to contact 75 percent of those in rural areas and strive for regular service to 25 percent within one year. Regular use shall be defined as four requests per user per year.
ACTIVITIES (Bibliographic)
Survey other books-by-mail operations
Investigate production costs of a catalog
Select multi-media titles based on reviews and user interest survey
Produce, distribute, evaluate catalog; and monitor use of the service
ACTIVITIES (Facilities)
Obtain work area
Purchase supplies for mailing operation
Install special shelving to accommodate materials to be mailed
Reassess supply and equipment requirements on continuing basis
ACTIVITIES (Personnel)
Recruit new librarian to supervise project
Assign one clerk from existing staff
Project supervisor to receive training in publicity and basic elements of evaluative research
Perform evaluation of project staff

The following sample objectives, applicable to any type of library, illustrate the range of functional areas that can be translated into measurable statements.

I. OBJECTIVE: interlibrary loan requests will be processed within a specified response time. A loan request is considered processed when the desired item is either located and forwarded from local resources or referred to an external agency for fulfillment. This objective shall be attained within one year.

Criterion: number of days to process a request.
Performance Level: present--2.5 days; expected--1 day
(Note: performance level pertains to at least 85 percent of the transactions.)
Activities/Actions: increase staff size; improve verification standards and searching competence of staff.
Method of Evaluation: time study based on random sample of transactions.
Responsibility: interlibrary loan librarian.

II. OBJECTIVE: within eighteen months, the library will initiate a systematic weeding program, which shall continue indefinitely. Weeded materials may be either discarded or placed in storage.

Criterion: percent of the collection reviewed annually.
Performance Level: 20 percent of the collection will be evaluated annually. (Some portions of the collection will be reviewed more often than once every five years.)

Activities/Actions: identify specific criteria for weeding (e.g., past circulation rate, language); develop a set of instructions for the weeding staff; and utilize outside consultants as required.

Method of Evaluation: checklist of collection segments reviewed by the staff. Effectiveness of the specific weeding criteria can be cross-checked by comparing weeded titles against subsequent demand and purchases.

Responsibility: system librarian.

III. OBJECTIVE: the library will strive to furnish correct answers to 80 percent of the reference inquiries received and accepted. This project will require two years.

Criterion: percentage of accurate responses to reference questions.

Performance Level: present--52 percent; expected--80 percent. Knowledge of the present accuracy rate, of course, presupposes that an evaluation of accuracy has already taken place.

Activities/Actions: in-service training for staff and/or upgrading quality of the collection.

Method of Evaluation: ask an outside expert on reference service to prepare and administer a set of questions, written and oral. Questions will be administered unobtrusively and obtrusively.

Responsibility: reference librarian.

While this section has concentrated on the characteristics of goals and measurable objectives, it is important not to lose sight of the paramount purposes of planning and evaluation: to stimulate a team approach to problem solving and to serve more effectively the changing needs of the library's constituency. Once identified, goals and objectives should be periodically reconsidered to take account of new conditions and for the salutary effect of rethinking an organization's mission.

Validity of Objectives

There are several attributes of an objective that determine whether or not it is a valid proposition:

1. Is it a guide to action? Implicit in this question is the requirement that a statement must specify a future action or impact. A general goal or philosophical assertion will not suffice at this point.
2. Does the objective contain a precise statement of the criterion or standard against which progress can be evaluated? Does each objective pinpoint the performance level for each criteria?
3. Does the objective suggest some method of measurement? There is only one way to evaluate progress toward reaching an objective--through some form of measurement keyed to the proposed action or

activity. We have already referred to the fact that the type of measurement must be relevant to the objective, its criterion, and the kind(s) of information needed to evaluate attainment of the objective. This step should be confronted and articulated to the maximum possible extent at the same time that goals/objectives are constructed.

4. Does the objective reflect external (e.g., population, legislation) and internal (e.g., financial resources, staff) constraints?
5. Does each objective relate to the broader goal(s) and provide guidance for the generation of subordinate activities?

VI. APPLICATION OF THE CIPP MODEL TO THE INTERLIBRARY LOAN OPERATION OF A HYPOTHETICAL LIBRARY SYSTEM

Introduction

In this section, the Context Input Process Product model is applied to the central interlibrary loan operation of a hypothetical public library system. The interlibrary loan unit is staffed by two library clerks, a part-time librarian, and processes approximately 9,000 transactions per year. The first part will formulate some of the numerous questions that should be asked and answered during the planning stage. The list is by no means exhaustive. The second part will delineate several specific goals, objectives, and activities for implementing an effective interlibrary loan network.

CIPP Model Analysis

Context (present operation, user needs, problems, opportunities).

-- Identify present interlibrary loan policies and objectives.
-- Who establishes policy?
-- Is a procedures manual available?
-- Who is served by interlibrary loan?
-- What types of materials are loaned?
-- What is duration of loan? Why? Renewable?
-- What forms are required to request an item?

-- Are telephone requests allowed?
-- What verification procedures are used?
-- What types of materials are requested (fiction, non-fiction, journals, etc.)?
-- What is the age, educational level, and occupation of users?
-- How are materials delivered?
-- How many requests are referred within the system? How many requests are referred to external agencies?
-- What is the cost per transaction? (Include staff, postage, insurance, photocopy, delivery, etc.)
-- What is the percentage of filled and unfilled requests?
-- What record-keeping procedures are employed? Are they sufficient for useful feedback on program effectiveness/efficiency?
-- Interlibrary loan staff: number, qualifications, competence?
-- What is the relationship of interlibrary loan to collection development, both at the system headquarters and member libraries?
-- How much money is locally allocated (e.g., staff, supplies) to interlibrary loan?
-- Are library patrons aware of the service? How?
-- What assistance is available to each patron in filling out a request?
-- Do the loan policies of external agencies help or hinder your service?
-- What major problems can be identified (e.g., money, staff, time, user complaints)?

-- What objectives have you selected? Why?
-- What performance indicators were chosen? Why?
-- What is the level of performance for each desired result? Basis for selection?

Input (analysis of alternative strategies for achieving objectives).

-- What different approaches to service were identified? Which one was selected? Why? (Different service approaches might include decisions relating to circulation of non-print and reference materials, delivery speed, staff size, etc.).
-- Was cost data available for each potential program alternative?

Process (continual feedback on program successes and failures).

-- What indicators have been selected to monitor program progress?
-- What methods will be employed for data collection (e.g., on-going records, questionnaires, interviews)?
-- What service improvements or defects have been noted (e.g., number of users, percent of filled/unfilled requests, verification time, number of external referrals, loan period, transit time)?
-- What program modifications have been instituted based upon performance feedback?

Product (termainal evaluation of program objectives).

-- What methods were employed to measure objectives?
-- Are they appropriate? Feasible?
-- Did interlibrary loan performance meet specified objectives and criteria?
-- In which area(s) was performance above and below expectations?

Specifying Goals and Objectives: An Example

This section contains a list of rather broad program goals. A selective list of specific, measurable objectives is then presented. For each objective there is a criterion or indicator (e.g., processing time, percent of requests filled/unfilled) and performance levels or standards for each criterion. These criteria and their associated levels of performance will be used to monitor program progress and to assess final results. Goals and objectives in this example are scheduled for completion within two years. A detailed data recording system will be employed during the project.

Planning Goals

1. An interlibrary loan unit will be maintained by the system to serve member libraries and their users.

2. Service will be available to all area residents holding a library card.
3. Materials in all formats will be loaned within the system.
4. Interlibrary loan transactions will abide by applicable codes.
5. A manual of procedures for verification, transmittal, etc., will be prepared and distributed to member libraries.
6. Achievement of optimal processing time for each request will be stressed.
7. Delivery time should be reduced.
8. The interlibrary loan unit will maintain a close liaison with the acquisition department(s) for the purpose of relating interlibrary loan activity to collection development requirements.
9. The system will explore the possibility of achieving reciprocal borrowing arrangements with adjacent public library systems and academic libraries.

Selected Measurable Objectives

I. OBJECTIVE: library users should become more aware of interlibrary loan service.

Criterion: percent of users aware of service.

Performance Level: present--15 percent; expected--60 percent.

Activities/Actions: library displays and pamphlets; more intensive promotion by applicable staff at member libraries; in-service training for all staff.

Method of Evaluation: mail survey questionnaire to sample of area library users.

Responsibility: interlibrary loan librarian.

II. OBJECTIVE: the level of user satisfaction with interlibrary loan service will be assessed.

Criterion: percent of users rating the service as "good" or better

Performance Level: present--40 percent; expected--75 percent.

Activities/Actions: reduce processing time; higher fill rate; client centered approach to user.

Method of Evaluation: mail survey questionnaire to sample of interlibrary loan service users.

Responsibility: interlibrary loan librarian.

III. OBJECTIVE: a satisfactory "fill rate" from internal sources should be achieved.

Criterion: internal fill rate--percentage of requests that can be filled by system libraries.

Performance Level: present--60 percent; expected--80 percent.

Activities/Actions: quantitative and qualitative improvement of member library collections; modification of selection policies (subject areas, multiple copy needs) based upon analysis of interlibrary loan requests.

Method of Evaluation: examination of statistical records.

Responsibility: interlibrary loan librarian, system director, and member libraries.

IV. OBJECTIVE: a 20 percent cost reduction per transaction should be attained. (Note: For the various cost categories of an interlibrary loan operation, consult Vernon E. Palmour and Lucy M. Gray, Costs and Effectiveness of Interlibrary Loan and Reference Activities of Resource Libraries in Illinois. Springfield, Illinois State Library, 1972.)

Criterion: cost per transaction.

Performance Level: present--$3.55; expected--$2.84.

Activities/Actions: initiate time and motion study of processing activities; improve searching and verification procedures at headquarters and at local level; employ a library technical assistant to supervise searching; eliminate two relatively untrained clerks.

Responsibility: interlibrary loan librarian.

V. OBJECTIVE: the bibliographic accuracy of requests submitted from each member library will be upgraded.

Criterion: percent of acceptable bibliographic citations submitted from member libraries.

Performance Level: present--65 percent acceptable from each library; expected--90 percent acceptable from each library.

Activities/Actions: periodic training sessions condicted by headquarters staff for member library personnel; staff visits to selected member libraries to rectify recurring deficiencies.

Method of Evaluation: quarterly examination of all requests and judgment on their acceptability.

Responsibility: interlibrary loan librarian.

APPENDIX A

FLOWCHART OF THE CIPP EVALUATION MODEL

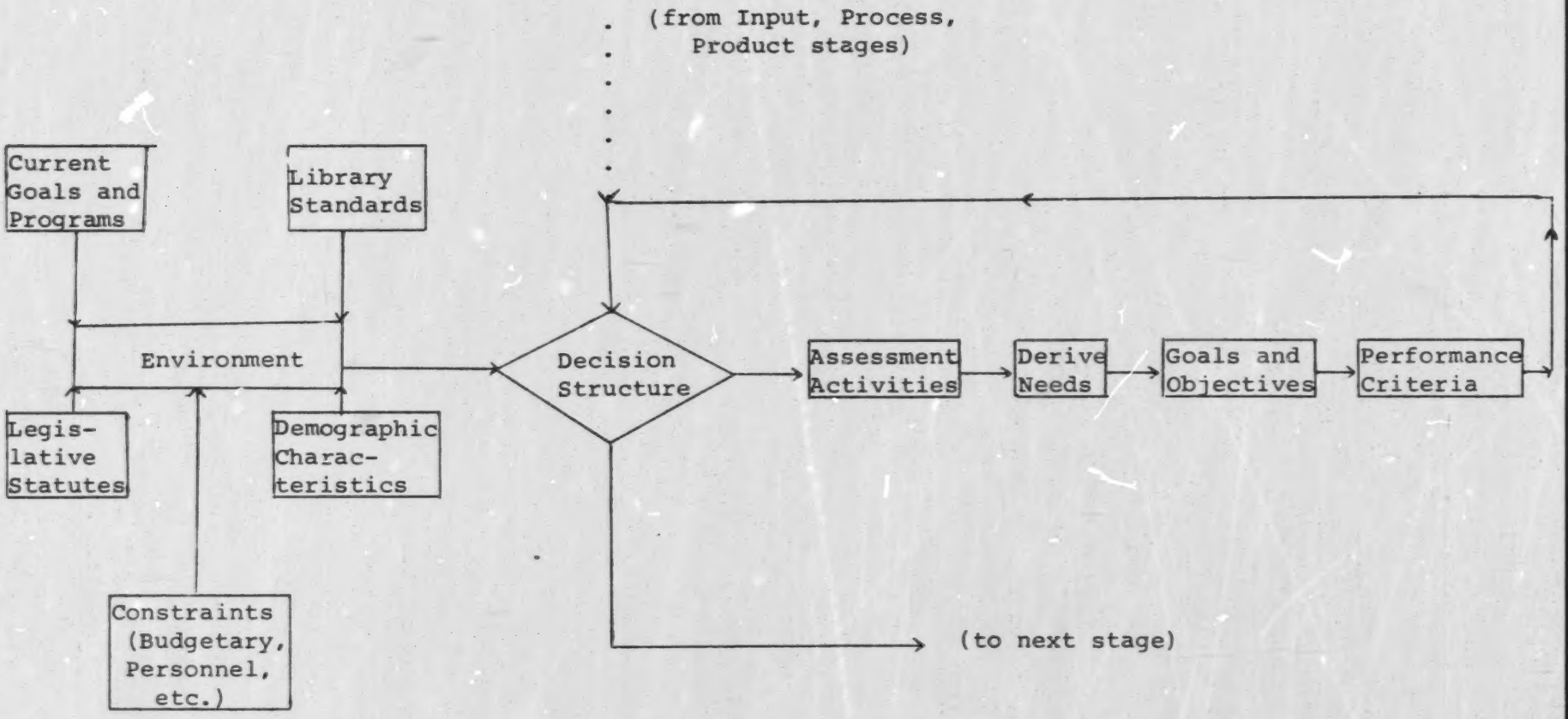
KEY TO SYMBOLS:

Direction of planning steps _____

Feedback . . . . . .

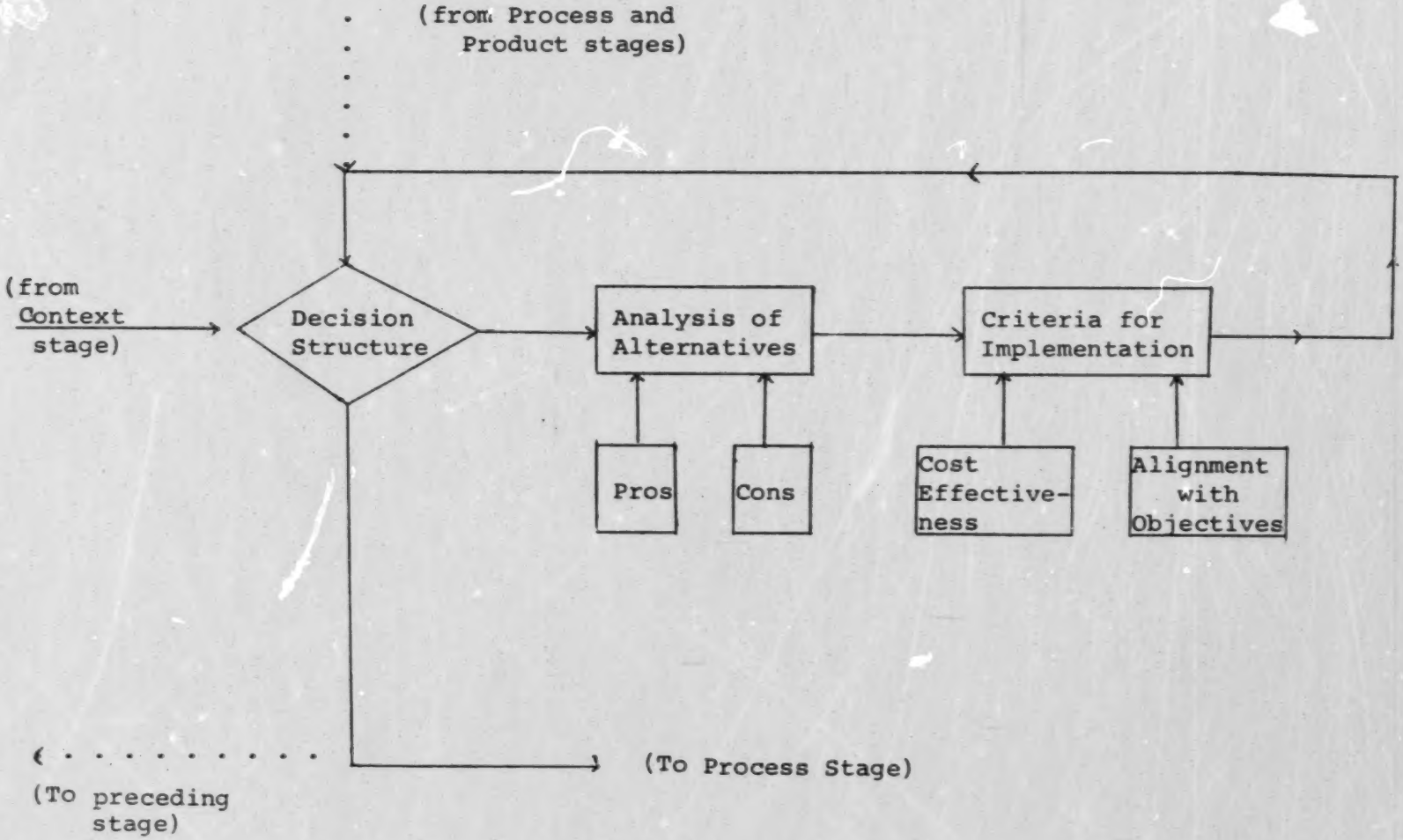
Note: New programs and projects should begin at the Context step and proceed through the CIPP model. Programs that are operational will normally enter the model at the Process stage, unless a total reevaluation is undertaken.

CONTEXT EVALUATION



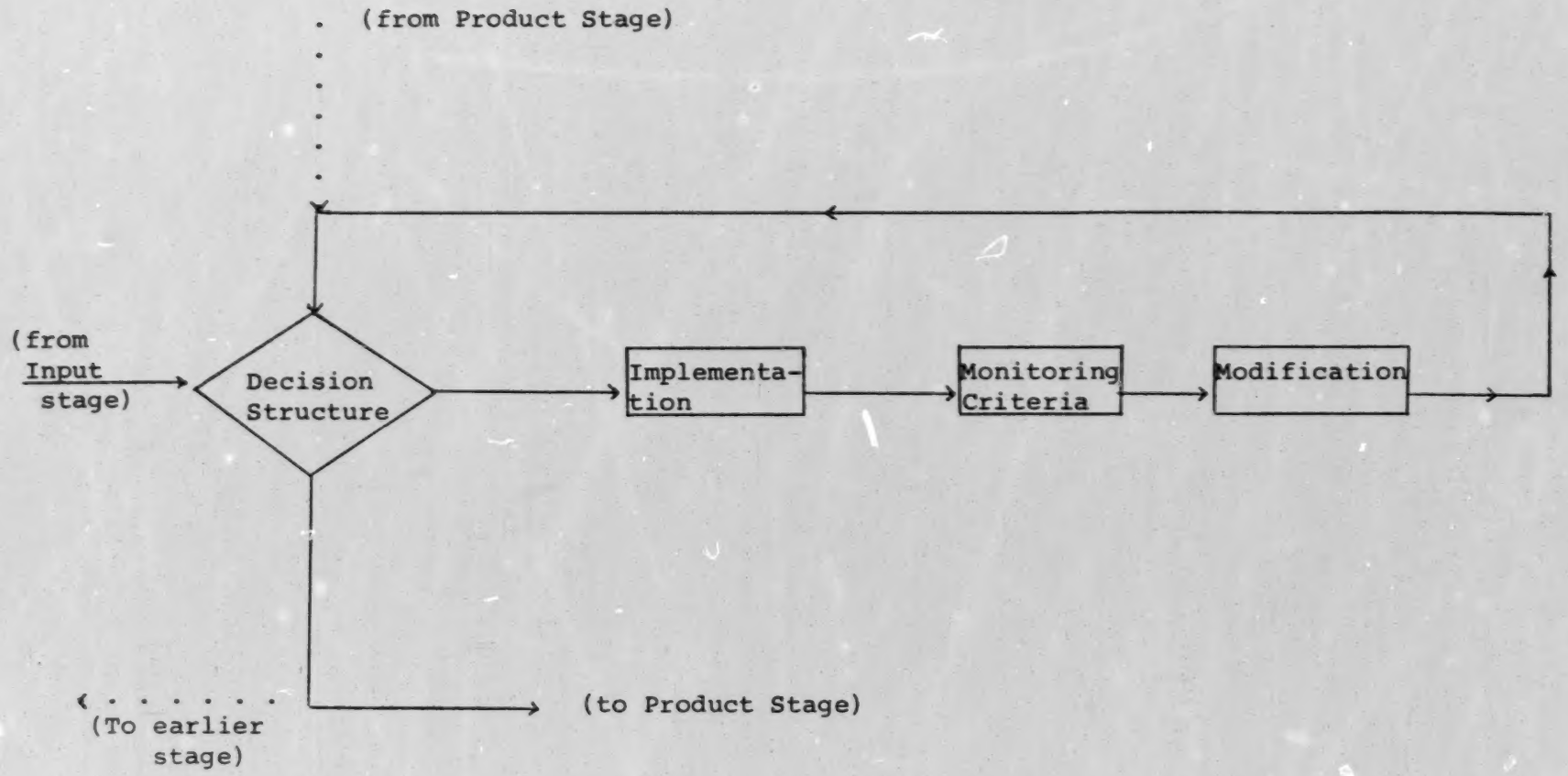
(Assessment of Needs, Construction of Goals/Objectives)

INPUT EVALUATION



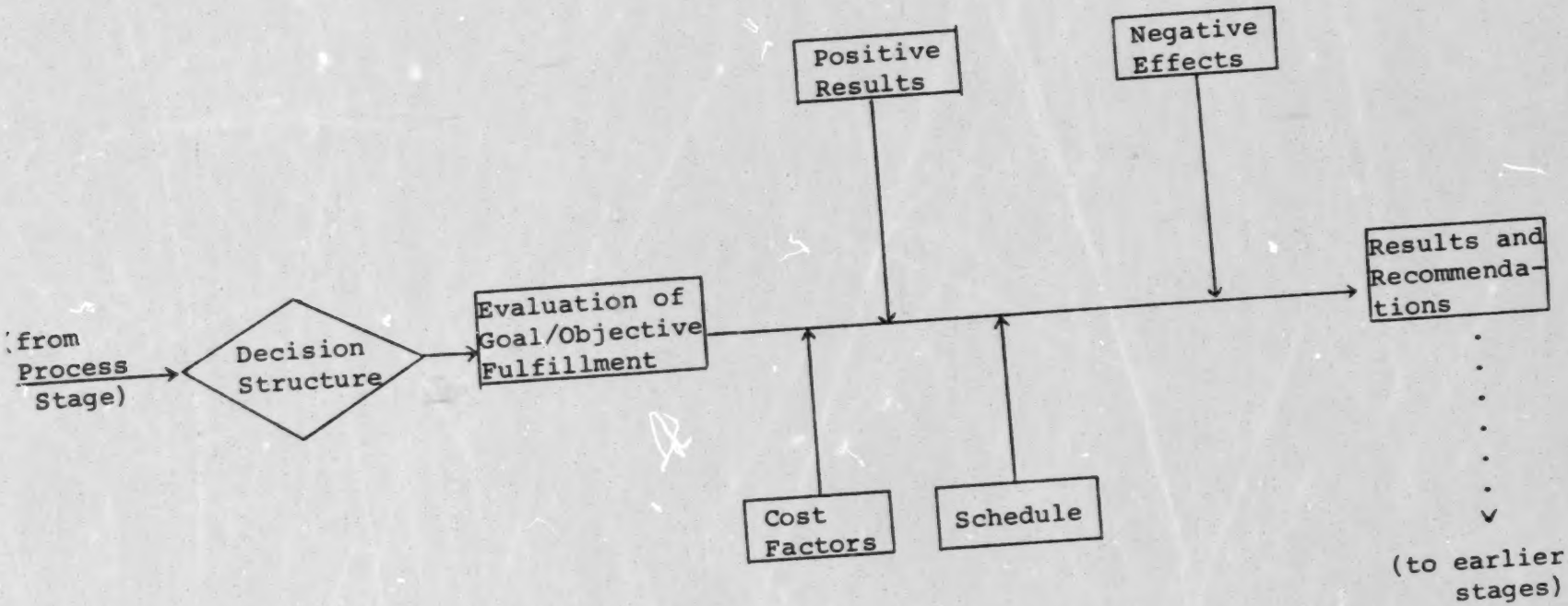
(Identification and Assessment of Alternatives)

PROCESS EVALUATION



(Monitoring Progress of Programs)

PRODUCT EVALUATION



(Effectiveness of Programs in Relation to Objectives)

APPENDIX B

DATA COLLECTION CATEGORIES--
CONTEXT PHASE

DATA COLLECTION CATEGORIES--CONTEXT PHASE*

I. Population

A. Table of System Area Census by County

	County A	County B
1. Land Area (sq. mi.)		
Change, 1960-1970		
Total		
Net Migration		
2. Female		
3. Race		
White		
Negro		
4. Age		
18 and Over		
65 and Over		
5. Foreign Stock		
Total		
Leading Country of Origin		
Spanish Heritage		
6. Educational Level of Persons Over 25		
Total		
4 Years High School		
4 Years College		
7. Students		
Persons 3-34 Enrolled in School		
Kindergarten		
Elementary		
High School		
College		
8. Employment		
Wholesale and Retail Trade		
Professional-Managerial		
Sales and Clerical		
Craftsmen and Foremen		

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*Sources of information: U.S. Census for 1970, State Library Census Reports, County Data Book and System Planning Data.

9. Median Family Income
   Total
   White
   Negro

10. Housing
    In One-unit Structures
    In Structures Built Prior to 1950
    Owner Occupied
    Moved into Unit During 1965-70

11. Population
    Urban
    Rural Non-farm Population
    Farm Population
       Total
       Change

12. Farms
       Total
       Change
    Size of Farm
       Average
       Under 10 Acres
       1,000 Acres or Over
    Operated by Corporations
    Sales $10,000 - 39,000
    Crops
    Dairy Products
    Livestock
    Poultry
    Working 100 or More Days off Farm

B. Items of interest:

1. Age groupings of population--analyze holdings of the system. Does the present collection of materials provide for children, for young adults, for adults, and for older people?

2. Religious characteristics of population may be of help in contacting organizations about advertising services offered by member libraries and system.

3. Population by county for 1970; could be compared with 1960 census figures to show areas of growth and decrease in population.

Example:	1960	1970	Difference
Smith County			+ or -

4. Urban-rural characteristics by county

Example of table:

County	Total System Pop.	Pctg. Farm-land	Pctg. of Pop. Rural	Pctg. of Pop. Urban	Number of Farm Families

5. Number of registered voters by county.

6. Number of political units by county--the total number of cities, incorporated towns, and villages; the types of school districts which would encompass elementary and unit, high school, and junior college levels; and, special districts for fire protection, parks, sanitary, forest preserves, airports, hospitals, etc.

II. Listing of geographic conditions which affect library service.

A. Travel distance to system, state roads and interestate system access to system, ease of travel between member libraries.

B. System boundaries--can be shown on a map.

III. Listing of institutions which affect library service.

A. Correctional institutions (prisons, county jails, reformatories, etc.).

B. Academic institutions (colleges, junior colleges, business schools, etc.).

C. Medical institutions (hospitals, mental institutions, trauma centers, etc.).

D. Industries (major ones with libraries or major industries which greatly affect the mobility and economical-educational level of a community).

E. Social service institutions (those that are staffed in a permanent building, such as day care centers, nursing homes, help for the handicapped, facilities for the poor or elderly, etc.).

F. Other--list media information agencies in each community such as television and radio stations, newspapers (daily and weekly), bookstores (number only), and extension agencies of local, state, or federal agencies (i.e., County home extension, college extension groups).

IV. Background of Library System

A. History of the system.

B. Services provided by the system under the law (See Ill. Rev. Statutes 81:113).

C. Plan of Service.

D. Current services offered to member libraries by the system.

E. Narrative about the system and member libraries.

1. Number of counties.
2. Number of endowed libraries, if any.
3. Number of people who live in tax-supported areas for library service.
4. Levy rates of member libraries.
5. Other sources of funds for member libraries: fines, gifts, revenue sharing, unexpected balances, etc.
6. Library expenditures.
7. Per capita support of libraries.

Example of table:

Per Capita Support	Number of Libraries in Category	Percent of Total

8. Educational level of member library staffs.

Example of table:

Number with Less than Bachelor's	Number with Bachelor's	Number with Fifth Year or Higher	Number with M.L.S.

9. Data on member libraries--users, buildings, collections, and transactions by type of material.

Examples:

TABLE 1

	Borrower Characteristics			
Library	Population	Registered Borrowers	Non-registered Population	Non-residents Registered

TABLE 2

	Library Buildings		
Library	Building Built	Latest Remodeling	Handicapped Access

TABLE 3

	Volumes Added to Member Libraries Served by the System from Beginning of System Operation to Present			
Library	1965-66	1966-67	------	1973-74

TABLE 4

Transactions by Type of Material

Library	Type of Library	Year Est.	Bldg. Built	No. of Seats	Population	Non-res. Fee
	Hrs. Open (wk)	Total Staff (FTE)	Total Trans.	Vols. Adult Books	Vols. Juv. Books	Sound Rec.
	Films (8mm & 16mm)	Periodicals Subs.	Vols.	Vols. Micro.	Tax Rate	Tax Levy Rec.	Total Expenditure

10. You can take the Illinois standards, "Measures of Quality," and in table form compare the standard with the resources of member libraries.

Example of table:

Illinois Standard	Book Collection
Population up to 4,999	15,000-20,000 Vols. Minimum
5,000-9,999	4 books per capita
10,000-24,999	3½ books per capita

No. of Libraries by Population	No. of Libraries which Meet Standard	
	No.	Pct. in Category

Similar tables could be set up for periodicals, hours open per week, and recordings held.

F. List non-member libraries.

G. Unserved areas.

1. Table showing unserved residents by county.

2. Map of system showing areas which have no tax-supported libraries.

APPENDIX C

REPORTING FORMS

CONTEXT REPORTING FORM

1. Goal:

2. Objectives: (and criteria for measuring attainment)

3. Environmental Considerations:

4. Decision Structure Considerations:

5. Needs Assessment Strategies:

6. Reporting (Providing) Mechanism:

INPUT REPORTING FORM

1. Identification and assessment of alternatives for achieving each objective:

Objective:	Alternatives:	Criteria for Selecting:

2. How will you obtain the data needed to identify and select alternatives:

3. To whom (and how) will you report your findings?

PROCESS REPORTING FORM

1. What mechanism will you use for monitoring the progress of the program?

2. What are the specific decision points?

3. When and how will evaluative information (feedback) be communicated?

4. Describe the decision-making environment and indicate who will be responsible for decisions required during monitoring. To whom will you report your findings?

PRODUCT REPORTING FORM

1. Did you attain the performance level(s) specified in the objectives identified in the Context phase?

2. To what degree do the final results reflect the intended goal/objectives?

3. To whom (and how) will you report your Product evaluation findings?

4. What will you do about discrepancies between goal attainment and goal expectations?

APPENDIX D

RELATIONSHIP OF THE CIPP MODEL TO DECISION MAKING AND ACCOUNTABILITY

RELATIONSHIP OF THE CIPP MODEL TO
DECISION MAKING AND ACCOUNTABILITY *
(Evaluation Phases)

(USES)	CONTEXT	INPUT	PROCESS	PRODUCT
DECISION MAKING	Objectives	Solution strategy Procedural design	Implementation	Termination, continuation, modification, or installation
ACCOUNTABILITY	Record of objectives and bases for their choice	Record of chosen strategy and design and reasons for their choice	Record of the actual process	Record of attainments and recycling decisions

*From "The Relevance of the CIPP Evaluation Model for Educational Accountability" by Daniel L. Stufflebeam.

APPENDIX E

GOLSSARY OF TERMS

GLOSSARY OF TERMS*

Accountability--The ability to account for past actions in relationship to the decisions which precipitated the actions, the wisdom of those decisions, the extent to which they were adequately and efficiently implemented, and the value of their effects.

Evaluation--Evaluation is the process of delineating, obtaining, and providing useful information for judging decision alternatives.

Planning--A detailed program or method worked out beforehand for the accomplishment of a project or goal.

CIPP--An acronym formed from the first letters of the four basic kinds of evaluation: Context, Input, Process, Product.

Context evaluation--This type of evaluation provides a rationale for determination of objectives for the system. It defines the environment, describes the desired and actual conditions pertaining to the environment, identifies unmet needs and unused opportunities, and diagnoses the problems that prevent needs from being met and opportunities from being used.

Input evaluation--This type of evaluation provides information for determining how to utilize resources to meet program goals. After objectives have been chosen, alternative ways to achieve the objectives are identified and assessed before a final program is decided upon.

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*Adapted from Daniel L. Stufflebeam, "The CIPP Model of Evaluation," In David D. Thomson, ed., Planning and Evaluation for Statewide Library Development: New Directions, Columbus, pp. 34-42.

Process evaluation--A program is chosen and the persons responsible for implementing plans and procedures provide periodic feedback information to the rest of the planning group. This type of evaluation has three objectives: (1) to detect or predict defects in the procedural design or its implementation during the implementation stages; (2) to provide information for making decisions; and (3) to maintain a record of the procedure as it occurs.

Product evaluation--This type of evaluation measures and interprets attainments at the end of the project cycle and as often as necessary during the project term. It provides information for determining whether objectives are being achieved and whether the procedure being used should be continued, modified, or terminated.

Goal--A goal is a statement that is abstract and cannot be measured. It implies movement toward an ideal; it is utopian.

Objective--An objective is a statement which can be measured quantitatively. It implies that a person or a system does something which can be observed or measured.

Activities--Activities are the means by which objectives can be met.

Decision maker--The decision maker and the evaluator may be the same person. All members of the planning group are decision makers in that they provide information or input concerning the needs to be served. One person is in charge of the planning group (i.e., the library system director) to coordinate and direct planning activities.

APPENDIX F

REPORT WRITING

REPORT WRITING*

1. Set forth the objectives of the library development plan. The objectives are usually tentative and not finally determined. They have been established after long and arduous planning sessions with key members of the staff.

2. List the kinds of data, statistics, and narrative justifications required for each objective. For every objective included in the plan there will be a proper rationale associated with it. Such a listing is critical, since certain objectives may show up as infeasible when the implications of the justification requirements are seen in sharp focus.

3. Indicate by objective, the staff requirements and all other attendant costs. At this stage, without all of the data completed, staffing and other costs involved in implementing the plan can only be approximated. It is an important step, however, to make these estimates since a realistic assessment of the total costs must be made early enough to recall or eliminate certain objectives if necessary. It is imperative that estimates by objective can be made so that staff will have a handle-hold on specific problem areas. The important point is that budgeting follows rather than precedes planning.

4. Make final refinements in the list of objectives and establish priorities. On the basis of analysis in steps 2 and 3, all objectives should now be agreed to and ordered as to implementation, target dates, and dollar priority.

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*From Robert L. Goldberg, "Report Writing," In David B. Thomson, ed., Planning and Evaluation for Statewide Library Development: New Directions, pp. 105-110.

5. Complete all data gathering, statistical tables, and narrative justifications. If possible, specific staff members should be assigned responsibility for completing various tasks derived from objectives.

6. Develop cohesive statement of total plan embracing all of the objectives. The development of a complete statement will give coherence to the total plan that a simple list of objectives cannot do.

7. Prepare first draft--rough copy only.

8. Develop final draft.

9. Review final draft. No one who has an emotional stake in the formulation, rhetoric, or style of the report should participate in this critical review.

APPENDIX G

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